

UNITED NATIONS



NATIONS UNIES

United Nations Brussels Team¹

CLIMATE CHANGE/ENVIRONMENT POLICY GROUP²

KEY MESSAGES³

Climate change and biodiversity loss are enormous and unprecedented challenges faced by everyone. If human activity continues the way that it has done for the last few hundred years, the implications of global warming could cost us up to 20% of World GDP every year⁴. All countries must embark on rapid and determined action to adapt to a changing environment and to mitigate climate change by moving towards a more sustainable way of living.

We have to acknowledge that the inter-linkages between climate change and biodiversity loss run both ways: biodiversity is threatened by a changing global environment, but proper management of biodiversity can reduce the impacts of climate change⁵. A holistic and comprehensive approach is therefore required to address these issues.

Developing countries, which will suffer the most from the negative effects of climate change, will need significant support to undertake the transition towards an energy and resource efficient green economy. Scaled-up, predictable and additional finance will be essential and the mechanisms to channel these funds must be set up in order to respond directly to country needs. This financing architecture cannot be seen in isolation from the policy and capacity development support that most countries will need; in fact, this support must be an integral part of the finance framework.

¹ The United Nations team in Brussels brings together some 24 UN agencies, funds and programmes represented in Brussels to act as a coherent team and speak with one voice in European fora in relation to policy and advocacy with the EU, as well as in more operational matters as appropriate, thereby strengthening the unitary voice and image of the UN collective presence in Brussels.

² The UN Brussels Team (UNBT) has put together a Climate Change/Environment Policy Group, which is an inter-agency group chaired by UNEP with sixteen other agencies participating (FAO, ILO, UNDP, UNFPA, UN-HABITAT, UNHCR, UNIDO, UNIFEM (part of UN WOMEN), UNISDR, UN-OCHA, UNOPS, UNRIC, WFP, WHO, World Bank and IOM). Its main objective is to coordinate a common UN message to be delivered towards the EU in the field on environment and climate change.

³ These key Messages on climate change and biodiversity were put together by the UNBT CC/ENV Policy Group on the basis of the UNBT agencies' inputs as well as on the basis of the final report of the Environment Management Group (EMG) titled: "Advancing the Biodiversity Agenda: a UN System-Wide Contribution" of 1/09/2010.

⁴http://webarchive.nationalarchives.gov.uk/+/http://www.hm-treasury.gov.uk/media/9/9/CLOSED_SHORT_executive_summary.pdf

⁵ <http://www.cbd.int/doc/bioday/2007/ibd-2007-booklet-01-en.pdf>

UN agencies are ready to work as a support team that can help countries get ready, coordinate resources and help countries to access and use funds to maximum effect, on an equitable and inclusive basis.

What the UN brings to the table:

1. **Normative standards:** Consensus around climate change and biodiversity requires a fully-legitimate process that is based on international standards, norms and values. The UN, as the guardian of international conventions and agreements, can bring this legitimacy to any deals regarding these subjects. Further and above all, the UN architecture and normative framework provides a human-rights based approach to address climate change and biodiversity loss impacts, including induced migration. This approach especially considers the social, political and economic obstacles that impede the full rights and empowerment of women and men equally.
2. **An unparalleled global network and asset base:** Developing countries will need strong support across sectors and disciplines, on knowledge, technology, investment and finance. In this context, there is no substitute for the United Nations. It can provide coherent and tailored multi agency support in both adaptation and mitigation work and offers information and assistance to all countries in the frame of its worldwide agency network.
3. **Technical expertise:** The UN is home to the world's largest network of expertise on climate change and its impact on environment, livelihoods, health, food security and nutrition, energy, water and infrastructure, humanitarian aspects, human security, decent jobs creation, industry, green growth and many other sectors. This source of knowledge can be very helpful for underlying assessments, policy developments and project implementations.
4. **Choice and ownership for developing countries:** The UN has a vital role to play in ensuring that developing countries can exercise choice and ensure ownership over their environmental strategies and policies. It brings a broad perspective that links climate change and biodiversity loss to broader environment and development issues critical for developing countries, from green economy, over Millennium Development Goals, to disaster risk management, conflict prevention and humanitarian issues. The UN is also uniquely placed to ensure that all developing countries – large and small – can benefit from equitable access to financing and support.
5. **Tested and responsive financial instruments:** A major barrier for many developing countries is the capacity to absorb and deploy funding. This is an area where the United Nations agencies are well placed to provide support for planning, policy reform and institutional strengthening as well as for preventive and early action. Building on existing successful models of climate finance like the Multilateral Fund for the implementation of the Montreal Protocol with its equitable governance structure, the original GEF model of a finance facility and the Multi Donor Trust Fund model, the UN can also offer comprehensive solutions to financing of complex multi partner initiatives.

Ensuring a meaningful and strategic role for the UN in a new environmental architecture will improve the odds for effective action against these global threats. On this basis, world leaders can seal a better deal for the next generation.

Key Messages on Climate Change

During the twentieth century, the earth's surface warmed by about 0.74° C, according to the Intergovernmental Panel on Climate Change (IPCC). Science has made great strides in determining the potential causes for that change. The IPCC's Fourth Assessment Report in 2007 stated that warming of the climate system is "unequivocal" and that most of the observed increase in global average temperatures since the mid-twentieth century is "very likely" due to the rise in greenhouse gases generated by human activity.

The implications of climate change are already manifesting themselves around the world and adaptation needs to be improved everywhere, including in high-income countries. Disruption in the climate system results in sea level rise, more frequent floods, storms, droughts and heat waves whose severity will only increase. The UN provides the following key messages on the importance of making climate change central to international policy and how to reduce the impacts that are linked with it:

- A. Climate change is exacerbating the impacts of past economic, financial and food global crises and hindering recovery. The effects are felt across the globe and have specific implications for the achievement of sustainable development and the Millennium Development Goals, undermining international efforts to combat poverty by further pressuring the environment in which many of the world's poorest people live and upon whose services they often depend. Looking to the future, the danger is that it will stall and then reverse progress built-up over generations, not just in cutting extreme poverty, but in health, nutrition, jobs, productive capacities, education and other areas.
- B. Considering that climate stressors and concomitant ecosystem degradation are a growing threat to global peace through an increasing pressure on food and water availability, there is a need to prevent conflict over dwindling natural resources through appropriate climate change adaptation measures. An integrated ecosystem management project enhancing resilience of local communities to climate change could contribute to preventing conflict over scarce natural resources at local and regional level.
- C. Adaptation to climate change and efforts to mitigate its effects by reducing emissions have far-reaching implications for economic and social development and thus for employment, incomes and poverty reduction around the world. However, adapting to climate change and mitigating its effects can also bring new opportunities to the world of labour, creating jobs in more sustainable and environmentally friendly sectors. An employment-intensive approach to mitigation and adaptation can boost local, regional and global economy and provide a solution to reduce poverty.
- D. In the process of combating climate change, it is important to identify and address the needs of vulnerable populations, including women and children, single female headed households, HIV impacted households, the elderly, refugees and internally displaced people, migrants and the urban and rural poor, whose livelihoods are most threatened by climate change. Vulnerability assessments need to consider the presence of these populations, and need to take into account changes in population and vulnerability over time.
- E. Priorities should be identified by developing countries themselves in accordance to their specific national conditions and needs. It is essential that any new financial instruments and funds being developed to support developing countries take their point of view into account.

Given the urgency of the challenge, flexibility is required on how to disburse these funds and the variance of eligibility rules and procedures for different funding sources needs to be contained.

- F. Mainstreaming climate change policy with other sectors like agriculture, energy and trade policy will be crucial in the coming efforts to reduce the impact of climate change worldwide. The following key policy perspectives should be included in the future discourse on this subject:

Environment and Primary Production: Food Security and Water

The future of climate change and the future of **food security** are intrinsically linked. Climate change and more frequent natural disasters threaten to increase dramatically vulnerable people's food insecurity and hunger. The cumulative effects of environmental degradation, decreasing yields, water availability, desertification, floods, storms and deforestation hamper or destroy the food security of the communities – especially those already trapped in poverty and hunger.

In this context, sub-Saharan Africa is the region most at risk. According to WFP, some countries could see a 50 percent reduction in yields from rain-fed agriculture by 2020 due to changes in rainfall patterns – putting millions at risk. Diminishing water availability and rising demand will also create immense challenges.

Climate change adaptation should therefore incorporate programmes aimed at ensuring food access and safety for the most vulnerable and at risk of hunger. Diversifying livelihoods and adapting agricultural, industrial, fishing and forestry practices by encouraging better water management, soil conservation, resilient crops and trees will be needed to prevent conflicts over scarce resources. Social protection and safety net programmes aimed at ensuring access to food and nutrition by the most vulnerable must be deployed concurrently with programmes aimed at enhancing food availability through the development of a sustainable agricultural production and agro-industry.

Social Services: Health, Science and Technology, Education and Culture

Strengthening **public health systems** and social health protection is already necessary to meet the health-related MDGs, and climate change makes this need even more critical. Today's shortfalls in providing basic health services leave much of the global population exposed to climate-related health risks and places the burden of such care disproportionately on women, especially among the poor with few other means or access to services. There is urgent need for additional investment to strengthen key functions of health systems including emergency preparedness and response, surveillance and control of infectious diseases, primary health care as well as forward planning to address the new challenges posed by climate change. By mitigating adverse health impacts of climate change and related economic costs, these investments will reduce the negative externalities of the conventional economy and help countries achieve savings that could be reoriented towards priority development areas.

Using **science and technology** to develop climate and climate impact models is necessary to give a better understanding of how climate change may affect farming, forestry and infrastructure at a local level and prepare for oncoming impacts and disasters. In this context, demographic and socio-economic information and modeling, linked to climate data and modeling, are critical for understanding social vulnerability and impacts of climate change, and for bridging the gap between social and physical approaches to adaptation. Extrinsically-inspired technology has often failed by

not meeting the needs of local populations nor responding to the whole of society, including women that are politically or socially marginalized and thus may not have a voice in decision-making but are nonetheless depended on and responsible for the management of resources within households and community. Therefore, it is crucial to ensure that technology transfer and solutions are locally appropriate and culturally accepted, and thus depend on stakeholder participation for their adoption and sustainability.

Fostering **education**, new management tools and approaches, providing training, enhancing a culture of sustainability with a focus on long-term visions and recognizing the dependence of humans on well functioning ecosystems is therefore essential to reduce climate change effects.

Production and Service: Economy, Energy, Industry and Employment

Economic development by doing business as usual is not sustainable. It will result in large-scale and lasting climate change caused by human activity with serious negative impacts for all life on earth, including human. The main reason is the link between growth and the consumption of energy provided by fossil fuels.

Therefore it is necessary to decouple economic growth from material and energy consumption and to work into the direction of a low and finally zero carbon society. It is key to foster and mainstream **energy efficiency**, strengthen sustainable **production** and consumption patterns and invest in low or zero carbon technology as well as renewable energy. Greening trade, investment and industry is part of the solution to climate change and biodiversity loss. The transfer of environmentally sound technology and know-how is a key element of a renewed industrial policy. The contribution of the private sector, particularly industry, is essential since the green economy/industry agenda can be achieved only through an effective **public private partnership**.

Decent jobs, with high **labour productivity** but also with high eco-efficiency and low emissions, hold the promise to provide good conditions and incomes, be good for growth, and help to protect the climate. Ensuring equal access to job opportunities for women and men in the emerging green economy ensures that the entire society is empowered to capitalize on growth and contribute to sustainable development. This will require renewed efforts on the adaptation of skills and competences, on supporting transitions in the labour market, on promoting job quality, extending social protection systems and on effective social dialogue in order to ensure ownership and support within the world of work. Given the “youth bulge”, or the relatively high proportion of youth entering employment age in many countries in the developing world, this is especially important. Making employment creation central to any investments in sustainable infrastructure and energy production, waste management and reforestation will strongly contribute to both greening the economy and to green jobs.

Disaster Risk Reduction and Migration

In the coming decades, climate change is expected to exacerbate the risks of **disasters**, not only from more frequent and intense hydro-meteorological hazard events, but also through greater vulnerability to already existing hazards. More frequent and intense storms and floods and long-lasting droughts can erode existing community-based coping capacities to prepare, respond and rebuild after successive hazard events. Efforts to **reduce vulnerability**, especially addressing ecosystem degradation as an underlying driver of disaster risk, should be made an immediate priority. This prioritization would help avoid human and economic losses in the short term, as well as secure development gains and provide a more sustainable basis for other adaptation action over the long term. Priority actions include the implementation of the Hyogo Framework for Action,

which includes strengthening governance institutions, policy frameworks and mechanisms that support integrated decision-making and more sustainable land-use. Regional and National Platforms for Disaster Risk Reduction are another important mechanism that supports knowledge sharing, scaling up existing good practices, capacity building and technology support building on already existing institutions, tools and capacities in disaster risk reduction.

Climate variability marked by extreme weather events as well as increased environmental degradation can potentially result in major increases in human displacement and **migration flows**. However, there is a pressing need for more and improved data and field-based studies on patterns of human migration induced by environmental change as a result of ecosystem degradation as well as climate change and climate variability. Policy response could involve developing temporary and circular **labour migration schemes** for environmentally vulnerable communities, which can serve as a livelihood diversification strategy and thus increase the resilience of vulnerable communities to environmental change (e.g. through remittances; skill transfer).

At later and more advanced stages of environmental degradation, where return is no longer possible, well planned and inclusive **internal relocation** or international resettlement may be needed. Existing tools such as the UN Guiding Principles on Internal Displacement should form a basis for the necessary policy development in this area. The migration and displacement implications of climate change need to be systematically addressed in adaptation policies and programmes, in order to prevent and reduce forced migration or displacement, address it coherently when it occurs and demonstrate the potential benefits of planned migration as an adaptation response.

Key Messages on Biodiversity

Ecosystems, from forests and freshwater to coral reefs and soils, deliver essential services to humankind which have been estimated to be worth up to US\$ 72 trillion a year – comparable to World Gross National Income⁶. Yet in 2010, nearly two-thirds of the globe's ecosystems are considered degraded as a result of damage, mismanagement and a failure to invest and reinvest in their productivity, health and sustainability.

Science has established that global climate change increases the frequency and intensity of climate-related disasters such as floods, fires, and droughts, and causes ecosystem degradation. This in turn reduces the resilience of ecosystems and human societies against the impacts of climate change and the increased risk of disasters. Ecosystem degradation compromises the carbon sequestration ability of natural systems, and may turn these systems from carbon sinks to sources, thus exacerbating the downward spiral.

Having made a first step to recognizing the importance of protecting our environment at the CBD COP10 conference in Nagoya, the road for implementation is now open. In this sense, the UN provides the following key messages on how to reduce the loss of biodiversity and with it the linked impacts of climate change:

- A. Prioritize to protect biodiversity and ecosystem service hotspots, even when partially degraded, to halt further degradation and allow for restoration planning to commence. Conservation provides by far the most cost efficient way to secure ecosystem services and prevent carbon emissions. This is particularly critical for areas with high degree of land pressures and development.
- B. Apply a multidisciplinary approach across stakeholders in order to make restoration investments successful. Wise investments reduce future costs and future public expenses, but it is imperative that the driving forces and pressures initially responsible for biodiversity loss are addressed in order to secure progressive recovery and that local stakeholders become involved and benefit from the restoration process.
- C. Ensure that investments in restoration are combined with long-term ecosystem management in both restored and in surrounding areas to ensure gradual recovery. Overseas Development Agencies, International Finance agencies and other funders should factor ecosystem restoration into development support, job generation and poverty alleviation funding.
- D. Many terrestrial and marine ecosystems are carbon sinks. Ecosystem conservation and restoration can therefore play a role in mitigating climate change, mainly through increasing carbon sequestration and storage. Protecting forests, peatlands and wetlands should constitute a priority in climate policy in order to maximize their potential for removing carbon from the atmosphere.
- E. Protecting and preserving ecosystems can also help in the process of adapting to climate change. Ecosystem management increases the resilience of natural systems and human societies to climate change impacts, maximizes co-benefits of mitigation of climate change, provides physical defense from climate-related disasters and increases the resilience of ecosystems towards climate change impacts.

⁶ Constanza et al. 1997. The Value of the Worlds ecosystem services and natural capital. *Nature* 387:253-260.

- F. Inadequate mainstreaming of biodiversity into sectoral policies and strategies has hampered progress in addressing the underlying drivers of biodiversity loss, but new opportunities for mainstreaming are emerging. Organizations worldwide need to include ecosystem management and the loss of biodiversity in their policies and mainstream this subject with other important areas such as:

Environment: Climate Change, Land, Water

Functioning ecosystems are crucial as buffers against extreme **climate** events and as filters for waterborne and airborne pollutants. Protecting and enhancing ecosystem resilience conservation, management and restoration of biodiversity and ecosystem services, are amongst the most cost-effective ways of tackling both the causes and the consequences of climate change.

Land is the terrestrial bio-productive system that comprises soil, vegetation, other biota, and the ecological and hydrological processes that operate within the system. Changes in land use and management are key drivers of changes in biodiversity at global, national and local scales. Land management should be conducted by setting global benchmarks for reducing land degradation and linking these to biodiversity targets.

Biodiversity provides ecological services that are impossible or very expensive to replicate by human hand, such as air purification and pollination. Ecosystem management is also essential to sustain a healthy **water** cycle, which is also central to the achievement of most of the Millennium Development Goals and improving water security worldwide.

Primary Production: Agriculture, Forestry, Fisheries

Agriculture has both positive and negative impacts on biodiversity. On the one hand, land use change caused by the expansion of agriculture is a major driver of biodiversity loss. On the other hand, agriculture landscapes also provide significant habitat for many wildlife species. The challenge is to promote production systems that are ecologically sound and sustainable and to respect the synergies and linkages between agricultural biodiversity and nutrition.

Forest also provides extremely valuable ecological services essential to human wellbeing. More than 1.6 billion people depend on forests to varying degrees for their livelihoods, deriving from them income, food, fibre, fuel and grazing for livestock. As forests are degraded, so is biodiversity. Forest degradation lowers the resilience of forest ecosystems and makes it more difficult for them to cope with changing environmental conditions. Reforestation, accompanied by an employment intensive approach, can also strengthen green jobs and the green economy.

Approximately half of all monitored **fish stocks** are now fully exploited, producing catches close to their maximum sustainable limits with no room for further expansion. An ecosystem approach to fisheries is called for, to protect and conserve ecosystems while providing food, income, and livelihoods from fisheries in a sustainable manner. A combination of measures has been proposed within this framework, including banning some fishing practices, setting up marine protected areas, and regulating or constraining access rights.

Social Services: Health, Science and Technology, Education and Culture

Biodiversity loss can have significant direct impacts on human **health** if ecosystem services are no longer adequate to meet social needs. Biodiversity plays a crucial role in human nutrition through its influence on world food production while the existence of functioning ecosystems such as

forests and wetlands is vitally important in the regulation of infectious diseases. At the same time, biodiversity provides a huge reservoir of potential medicines that can benefit human health. However, research and development of such knowledge needs to be done in a sustainable way and provide substantial benefits to local and indigenous communities.

Science and Technology is recognized as a main driver of change affecting ecosystem structure and functioning and can have both positive and negative impacts on biodiversity. When applied to specific sectors such as water management in the context of large dams and similar infrastructures, it has had primarily adverse impacts on biodiversity. But science, technology and education can also have positive impacts on biodiversity as for example the use of renewable energy systems demonstrates. Moreover, cultural and belief systems can be positively affected, so that behavior compatible with the conservation and sustainable use of biodiversity can be adopted and widely promoted.

Education for Sustainable Development is the educational process of achieving human development through economic growth, social development, and environmental conservation that is inclusive, equitable, sustainable and secure. It is possible to learn to live full lives within the capacity of the Earth to satisfy our needs. In this respect, preservation of indigenous knowledge on biodiversity is another key element that needs to be included in future policies.

Production and Service: Energy, Industry, Tourism and Transport

Energy and biodiversity are connected in many different ways. Impacts are linked to the extraction, transportation, processing and use of primary fuels – both renewable and non-renewable – and the generation and transmission of electricity. Positive impacts can occur, for example, if countries and companies go beyond mitigation of negative impacts from operations to supporting biodiversity conservation in and around project sites. The greening of energy production and distribution processes, through for example the reduction of energy intensity, renewable energies and mini off-grid systems, is a crucial contribution to decrease biodiversity loss. The challenge is to reduce the drawbacks and increase the opportunities for synergies with biodiversity goals by making informed choices throughout the supply chain. The goal is to achieve a transformation towards a low or zero carbon system.

Industries, including those which extract renewable or non-renewable resources, rely directly or indirectly on natural ecosystems and their resources for the supply of raw materials or ecosystem services. The harvest of biological resources, utilisation of ecosystem services, and extraction of nonbiological resources by these industries can have marked impacts on ecosystems and are leading causes of biodiversity loss. The loss of biodiversity is also due to habitat conversion, overexploitation, pollution, the introduction and spread of invasive alien species and climate change. At the same time, the greening of industries is part of the solution. There is a huge potential in upgrading industrial processes in a green and more sustainable way, increasing resource efficiency, ensuring cleaner production, supporting recycling and reducing waste while continuing to generate economic and social gains.

Biodiversity is a major attraction for **tourism**, a sector which, if sustainably developed and well managed, can generate important economic benefits and can play a critical role in the conservation and sustainable use of biodiversity. On the other hand, unsustainable tourism can potentially reduce biodiversity and ecosystem services. Biodiversity friendly tourism could contribute to maintaining the quality of ecosystems through nature based sustainable tourism products, generate income for ecosystem conservation and for local populations, enhance the security of tourists and populations

by maintaining natural barriers and adapt vulnerable and exposed areas to the impacts of climate change.

Rail, road and air **transport** impact biodiversity through alteration in the type, quality and extent of habitats when building infrastructures. Integrating environmental impact assessments into any new developments in infrastructure provides a solution to reduce threats to ecosystems and habitat loss.

Finance and Trade

Trade policies, if designed and implemented well, can have positive impacts on biodiversity and ecosystems - by promoting specialization in production and therefore improving the efficiency of resource allocation. However, if designed or implemented poorly, trade policies can lead to overexploitation of natural resources, loss of wildlife habitats, degradation of ecosystem services, or even limit opportunities from sustainable trade initiatives.

In terms of **finance**, it is important to strengthen the integration of biodiversity concerns. With the current rate and scale of biodiversity loss weakening the ability of ecosystems to deliver key services, financial institutions are finding themselves increasingly exposed to greater biodiversity-related risks through companies they insure or in which they invest. Preventive measures need to be taken into account and the precautionary principle should be borne in mind. Mainstreaming biodiversity in all development sectors needs sufficient financing resources and support.

Access and Benefit Sharing of Genetic Resources (ABS)

Biodiversity and intact ecosystems offer a major source of genetic resources, providing medicines, crop varieties and traditional pathogens used for the development of vaccinations. The worth of these resources should not be underestimated, as they are invaluable to human development and human health and provide three quarters of the world's population with natural traditional remedies. Protecting ecosystems and their inhabitants is therefore not only an ecological, but also a human imperative.

Humanitarian Affairs and Peacekeeping

On one hand, ecosystem degradation can exacerbate **conflict** in some situations, contributing to scarcity of natural resources such as water, fuel or food. On the other hand, the impact of **war** on biodiversity is high and may include habitat and ecosystem destruction, pollution and overexploitation, all of which may take place not only during the conflict, but also during the post conflict phase. A need for close cooperation between military and civilian actors has been identified as has the importance of fostering different types of network. To address the need of peacekeeping field missions, the United Nations have successfully developed specific Environmental Policy and Guidelines which can be applied in post conflict situations.